

**REMARKS**

Claims 11 through 18 and 20 through 27 are pending in this Application. Claim 16 has been amended by incorporating the limitations of claim 19 therein and claim 19 cancelled, along with claims 1 through 10. Claim 27 has been amended to address a formalistic issue identified by the Examiner. In addition, the specification has been amended at the suggestion of the Examiner to indicate the Provisional Application number of the Application filed August 8, 2003. Applicants submit that the present Amendment does not generate any new matter issue.

**Objection to the Disclosure.**

The Examiner objected to the disclosure identifying a minor informality in omitting the Serial Number of the Provisional Application filed on August 8, 2003 and courteously suggested remedial language. In response the specification has been amended consistent with the Examiner's suggestion, thereby overcoming the stated basis for the objection to the disclosure. Accordingly, withdrawal of the objection to the disclosure is solicited.

**Claim Objection.**

The Examiner objected to claim 27 identifying a minor informality which has been corrected by the present Amendment, thereby overcoming the stated basis for the objection. Accordingly, withdrawal of the objection to claim 27 is solicited.

**Claims 1 through 3, 6 through 8, 11 through 13 and 21 through 23 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Hirano et al.**

In the statement of the rejection the Examiner referred to Fig. 14 of Hirano et al., asserting the disclosure of an optical fiber having a chromatic dispersion whose absolute value satisfies the requirements of claim 11. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). When imposing a rejection under 35 U.S.C. § 102 the Examiner is required to specifically identify wherein an applied reference is asserted to identically disclose each and every feature of a claimed invention, particularly when such is not apparent as in the present case. *In re Rijckaert*, 9 F.3d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984). That burden has not been discharged. Indeed, there are significant differences between the wavelength converter defined in independent claims 11 and 21 and that disclosed by Hirano et al. that scotch the factual determination that Hirano et al. disclose a wavelength converter identically corresponding to those claimed.

Specifically, as to independent claim 11, the Examiner's reliance upon the fiber E6 listed in Fig. 14 of Hirano et al. is misplaced. This is because the fiber E6 listed in Fig. 14 has a chromatic dispersion of 0.18 ps/nm/km. However, since fiber E6 has a dispersion slope of 0.045 ps/nm<sup>2</sup>/km, it is apparent and one having ordinary skill in the art would have so understood that

fiber E6 cannot satisfy the features of the fiber defined in claim 11. In order to satisfy the features of claim 11, it is **necessary** that the dispersion slope of the fiber E6 become 0.01 ps/nm<sup>2</sup>/km (= (0.4 ps/nm/km)/35 nm). Thus, as a factual matter, Hirano et al. neither disclose nor suggest the wavelength converter defined in independent claim 11.

Further, independent claim 21 is directed to a wavelength converter comprising, *inter alia*, a pumping light source in which a wavelength of the pumping channel is tunable. It is not apparent and the Examiner did not identify wherein Hirano et al. disclose or suggest a wavelength converter as defined in independent claim 21 comprising, *inter alia*, a tunable pumping light source. Moreover, as previously pointed out, Hirano et al. neither disclose nor suggest a wavelength converter comprising an optical fiber having the recited dispersion slope.

The above argued difference between the claimed wavelength converters and the converter disclosed by Hirano et al. undermine the factual determination that Hirano et al. disclose a wavelength converter identically corresponding to those claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicants, therefore, submit that the imposed rejection of claims 1 through 3, 6 through 8, 11 through 13 and 21 through 23 under 35 U.S.C. § 102 for lack of novelty as evidenced by Hirano et al. is not factually viable and, hence, solicit withdrawal thereof.

**Claims 1, 6, 11, 16 and 21 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Okuno et al.**

In the statement of rejection the Examiner asserted that Okuno et al. disclose a wavelength converter corresponding to that claimed and, referring to Example 9 in column 19,

asserted that the optical fiber has a chromatic dispersion as set forth in independent claim 11.

This rejection is traversed.

Initially, Applicants note that claims 1 and 6 have been cancelled. Further, the limitations of claim 19, indicated allowable, have been incorporated into independent claim 16.

Applicants again stress that the factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc., supra*; *Crown Operations International Ltd. v. Solutia Inc., supra*. When imposing a rejection under 35 U.S.C. § 102 the Examiner is required to specifically identify wherein an applied reference is asserted to identically disclose each and every feature of a claimed invention, particularly when such is not apparent as in the present case. *In re Rijckaert, supra*; *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., supra*. That burden has not been discharged. Moreover, there is a significant difference between the claimed wavelength converters and the converter disclosed by Okuno et al. that scotches the factual determination that Okuno et al. disclose a wavelength converter identically corresponding to those claimed.

Specifically, the Examiner's reliance upon Example 9 of Okuno et al. for the chromatic dispersion as defined in the claims is misplaced. As previously pointed out, in order to satisfy the requirements for the optical fiber employed in the claimed wavelength converters, it is necessary that the dispersion slope of the fibers become  $0.01 \text{ ps/nm}^2/\text{km}$ . However, the dispersion slope of Example 9 of Okuno et al. is  $0.035 \text{ ps/nm}^2/\text{km}$ . It is, therefore, apparent and one having ordinary skill in the art would have so understood that the fiber disclosed by Okuno et al. does not satisfy the requirements of claim 11 and claim 21.

Further as to claim 21, it is not apparent and the Examiner did not specifically point out, as judicially required, wherein Okuno et al. disclose or suggest a wavelength converter comprising, *inter alia*, a pumping light source in which a wavelength of the pumping channel is tunable.

The above argued differences between the claimed wavelength converters and the converter disclosed by Okuno et al. undermine the factual determination that Okuno et al. disclose a wavelength converter identically corresponding to those claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., supra; Kloster Speedsteel AB v. Crucible Inc., supra*. Applicants, therefore, submit that the imposed rejection of claims 1, 6, 11, 16 and 21 under 35 U.S.C. § 102 for lack of novelty as evidenced by Okuno et al. is not factually viable and, hence, solicit withdrawal thereof.

**Claims 5, 10, 15 and 27 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Hirano et al.**

**Claims 2, 3, 5, 7, 8, 10, 12, 13, 15, 17, 18, 20, 22, 23 and 27 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Okuno et al.**

**Claim 16 was rejected under 35 U.S.C. § 103 for obviousness predicated upon IEEE PHOTONICS TECHNOLOGY LETTERS (the Okuno et al. publication).**

Each of the above rejections under 35 U.S.C. § 103 is traversed. Specifically, claims 2, 3, 5, 7, 8 and 10 have been cancelled; claims 12, 13 and 15 depend from independent claim 11; the limitations of claim 19, indicated allowable, have been incorporated into claim 16; claims 17, 18 and 20 depend from claim 16; and claims 23 and 27 depend from independent claim 21.

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Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claims 11 and 21 under 35 U.S.C. § 102 for lack of novelty as evidenced by each of Hirano et al. and Okuno et al. The Examiner's additional comments do not cure the previously argued deficiencies of Hirano et al. and Okuno et al.

Based upon the foregoing Applicants submit that the imposed rejection of claims 5, 10, 15 and 27 under 35 U.S.C. § 103 for obviousness predicated upon Hirano et al., the imposed rejection of claims 2, 3, 5, 7, 8, 10, 12, 13, 15, 17, 18, 20, 22, 23 and 27 under 35 U.S.C. § 103 for obviousness predicated upon Okuno et al., and the imposed rejection of claim 16 under 35 U.S.C. § 103 for obviousness predicated upon the Okuno et al. publication, are not factually or legally viable and, hence, solicit withdrawal thereof.

Applicants acknowledge, with appreciation, the Examiner's indication that claims 4, 9, 14, 19, 24, 25 and 26 contain allowable subject matter. Based upon the foregoing it should be apparent that the imposed objections and rejections have been overcome, and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

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Respectfully submitted,

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